

86. (New) The method of claim 85 further comprising re-reading the optical storage media at a second locus.

87. (New) The method of claim 85 wherein the data obtained in step (a) produces a signal that is inadequate to provide for an intended use of data stored on the medium.

88. (New) The method of claim 87 wherein the data obtained in step (b) produces a signal that is adequate to provide for an intended use of data stored on the medium.

89. (New) The method of claim 85 wherein the data obtained in step (a) comprises at least a portion of a file allocation statement.

90. (New) The method of claim 85 wherein re-reading at the locus occurs within about one second of reading at the locus.

91. (New) The method of claim 90 wherein re-reading at the locus occurs within about ten milliseconds of reading at the locus.

92. (New) The method of claim 91 wherein re-reading at the locus occurs within about one millisecond of reading at the locus.

93. (New) The method of claim 85 further comprising providing the optical storage medium with a light-sensitive compound.

94. (New) The method of claim 93 wherein re-reading at the locus comprises reading a signal from the light-sensitive compound.

95. (New) The method of claim 93 further comprising providing a light-sensitive compound in the optical path of the locus and an optical detector.

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96. (New) The method of claim 93 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by a detector in an optical reader.
97. (New) The method of claim 93 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a detector in an optical reader.
98. (New) The method of claim 96 wherein a light emission from the compound provides at least a portion of the data obtained in step (b).
99. (New) The method of claim 96 wherein the light-sensitive compound is excitable by light emitted by a light source in the optical reader.
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100. (New) The method of claim 93 wherein the light-sensitive compound has an emission wavelength from about 770 nm to about 830 nm.
101. (New) The method of claim 100 wherein the light-sensitive compound has an emission wavelength of about 780 nm.
102. (New) The method of claim 93 wherein the light-sensitive compound has an emission wavelength from about 630 nm to about 650 nm.
103. (New) The method of claim 93 wherein the light-sensitive compound has an emission wavelength of about 530 nm.
104. (New) The method of claim 93 wherein the light-sensitive compound has an emission wavelength in the near infrared range.
105. (New) The method of claim 93 wherein the compound is luminescent.
106. (New) The method of claim 93 wherein the compound is phosphorescent.

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107. (New) The method of claim 93 wherein the compound has an emission wavelength of about 780 nm, or about 530 nm, or both.

108. (New) The method of claim 85 wherein the optical recording medium is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18, DVD-ROM and any optical recording medium.

109. (New) The method of claim 93 wherein the compound is a cyanine compound.

110. (New) The method of claim 93 wherein the compound is selected from the group consisting of indodicarbocyanines, benzindodicarbocyanines and hybrids thereof.

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111. (New) A data storage medium readable with a reader, the data storage medium comprising:

a substrate;

optical data structure on the substrate, the optical data structure representative of a plurality of data bits; and

a material capable of existing in at least a first optical state and a second optical state, the first optical state being convertible to the second optical state upon exposure to an input signal, and the second optical state being spontaneously convertible after a period of time to the first optical state;

wherein the material is positioned at one or more discrete loci along the data storage medium in respect of the optical structure, such that when the data storage medium is first read at a locus, and the material is in its first optical state, the bit data read is true to the optical data structure at such locus, while when the data storage medium is re-read at the locus, and the material is in its second optical state, the data bit read varies by one or more bits from that true to the optical data structure at the locus.

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112. (New) The data storage medium of claim 111 wherein the data obtained when the data storage medium is first read produces a signal that is inadequate to provide for an intended use of data stored on the medium.

113. (New) The data storage medium of claim 112 wherein the data obtained when the data storage medium is re-read produces a signal that is adequate to provide for an intended use of data stored on the medium.

114. (New) The data storage medium of claim 111 wherein the data obtained when the data storage medium is first read comprises at least a portion of a file allocation statement.

115. (New) The data storage medium of claim 111 wherein the material is a light-sensitive compound.

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116. (New) The data storage medium of claim 115 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by the reader.

117. (New) The data storage medium of claim 115 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by the reader.

118. (New) The data storage medium of claim 116 wherein light emission from the compound provides at least a portion of the data obtained when the data storage medium is re-read.

119. (New) The data storage medium of claim 116 wherein the light-sensitive compound is excitable by light emitted by a light source of the reader.

120. (New) The data storage medium of claim 115 wherein the light-sensitive compound has an emission wavelength from about 770 nm to about 830 nm.

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121. (New) The data storage medium of claim 120 wherein the light-sensitive compound has an emission wavelength of about 780 nm.

122. (New) The data storage medium of claim 115 wherein the light-sensitive compound has an emission wavelength from about 630 nm to about 650 nm.

123. (New) The data storage medium of claim 115 wherein the light-sensitive compound has an emission wavelength of about 530 nm.

124. (New) The data storage medium of claim 115 wherein the light-sensitive compound has an emission wavelength in the near infrared range.

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125. (New) The data storage medium of claim 115 wherein the compound is luminescent.

126. (New) The data storage medium of claim 115 wherein the compound is phosphorescent.

127. (New) The data storage medium of claim 115 wherein the compound has an emission wavelength of about 780 nm, or about 530 nm, or both.

128. (New) The data storage medium of claim 111 wherein the optical recording medium is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18, DVD-ROM and any optical storage medium.

129. (New) The data storage medium of claim 115 wherein the compound is a cyanine compound.

130. (New) The data storage medium of claim 115 wherein the compound is selected from the group consisting of indodicarbocyanines, benzindodicarbocyanines and hybrids thereof.

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131. (New) An optical disk comprising a substrate having one or more information pits and land thereon readable as digital data bits by an optical reader, and a fluorescent material positioned over one or more of said information pits and land.

132. (New) The disk of claim 131 wherein the fluorescent material has an emission wavelength at a wavelength detectable by the reader.

133. (New) The disk of claim 131 wherein light emission from the fluorescent material provides at least a portion of the data obtained when the disk is read.

134. (New) The disk of claim 131 wherein the fluorescent material is excitable by light emitted by a light source of the reader.

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135. (New) The disk of claim 131 wherein the disk is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18, DVD-ROM and any optical disk.

136. (New) A method of authenticating optical storage media including data structure, the method comprising:

reading the optical storage media at a locus to obtain a first set of usable data from the data structure at the locus; and

re-reading the optical storage media at the locus to obtain a second set of usable data, wherein the second set of usable data is different from the first set of usable data regardless of the data structure of the optical storage media at the locus.

137. (New) The method of claim 136 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data bit.

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138. (New) The method of claim 136 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data byte.

139. (New) The method of claim 136 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data frame.

140. (New) The method of claim 136 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data block.

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141. (New) The method of claim 136 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data sector.

142. (New) The method of claim 136 further comprising re-reading the optical storage media at a second locus.

143. (New) The method of claim 136 wherein the first set of data produces a signal that is inadequate to provide for an intended use of data stored on the medium.

144. (New) The method of claim 143 wherein the second set of usable data produces a signal that is adequate to provide for an intended use of data stored on the medium.

145. (New) The method of claim 136 wherein the second set of usable data comprises at least a portion of a file allocation statement.

146. (New) The method of claim 136 wherein re-reading at the locus occurs within about one second of reading at the locus.

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147. (New) The method of claim 146 wherein re-reading at the locus occurs within about ten milliseconds of reading at the locus.

148. (New) The method of claim 147 wherein re-reading at the locus occurs within about one millisecond of reading at the locus.

149. (New) The method of claim 136 further comprising providing the optical storage medium with a light-sensitive compound.

150. (New) The method of claim 149 wherein re-reading at the locus comprises reading a signal from the light-sensitive compound.

151. (New) The method of claim 149 further comprising providing light-sensitive compound in the optical path of the locus and an optical detector.

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152. (New) The method of claim 149 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by an optical reader.

153. (New) The method of claim 149 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a reader.

154. (New) The method of claim 152 wherein a light emission from the compound provides at least a portion of the second set of usable data.

155. (New) The method of claim 152 wherein the light-sensitive compound is excitable by light emitted by the optical reader.

156. (New) The method of claim 149 wherein the light-sensitive compound has an emission wavelength from about 770 nm to about 830 nm.

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157. (New) The method of claim 156 wherein the light-sensitive compound has an emission wavelength of about 780 nm.

158. (New) The method of claim 149 wherein the light-sensitive compound has an emission wavelength from about 630 nm to about 650 nm.

159. (New) The method of claim 149 wherein the light-sensitive compound has an emission wavelength of about 530 nm.

160. (New) The method of claim 149 wherein the light-sensitive compound has an emission wavelength in the near infrared range.

161. (New) The method of claim 149 wherein the compound is luminescent.

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162. (New) The method of claim 149 wherein the compound is phosphorescent.

163. (New) The method of claim 154 wherein the compound is excitable at a wavelength of about 780 nm or about 530 nm.

164. (New) The method of claim 149 wherein the compound has an emission wavelength of about 780 nm, or about 530 nm, or both.

165. (New) The method of claim 149 wherein the light-sensitive compound has an emission wavelength of less than about 848 nm.

166. (New) The method of claim 149 wherein the compound has emission wavelengths of about 780 nm and about 530 nm.

167. (New) The method of claim 136 wherein the optical recording medium is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18, DVD-ROM and any optical recording medium.

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168. (New) The method of claim 136 wherein the optical recording medium is a CD.
169. (New) The method of claim 136 wherein the optical recording medium is a CD-ROM.
170. (New) The method of claim 136 wherein the optical recording medium is a DVD.
171. (New) The method of claim 149 wherein the compound is a cyanine compound.
172. (New) The method of claim 149 wherein the compound is selected from the group consisting of indodicarbocyanines, benzindodicarbocyanines and hybrids thereof.
173. (New) The method of claim 149 wherein the compound is an indodicarbocyanine.
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174. (New) The method of claim 149 wherein the compound is an benzindodicarbocyanine.
175. (New) The method of claim 149 wherein the compound is a hybrid of an indodicarbocyanine and a benzindodicarbocyanine.
176. (New) An optical disk comprising:
a substrate;
a data track disposed on the substrate, the data track including a first set of usable data;
and
a light-sensitive compound disposed on at least a portion of the disk and cooperating with at least a portion of the data track, the light-sensitive compound being excitable with a suitable stimulus to produce a second set of usable data that is different from the first set of usable data regardless of the first set of usable data in the data track.
177. (New) The disk of claim 176 wherein the data track is injection molded.
178. (New) The disk of claim 176 wherein the data track is formed via a recording dye.

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Cont } 179. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is active.

180. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is phosphorescent.

181. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is fluorescent.

182. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 770 and about 830 nm.

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184. (New) The disk of claim 176 wherein the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 780 nm and by a light source emitting at about 530 nm.

185. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is adapted to emit at 780 nm.

186. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is adapted to emit at 530 nm.

187. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is adapted to emit at both about 780 nm and about 530 nm.

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188. (New) The disk of claim 176 wherein the light-sensitive compound comprises a cyanine compound.

189. (New) The disk of claim 176 wherein the light-sensitive compound comprises indodicarbocyanines.

190. (New) The disk of claim 176 wherein the light-sensitive compound is benzindodicarbocyanines.

191. (New) The disk of claim 176 wherein the light-sensitive compound is a hybrid of indodicarbocyanines and benzindodicarbocyanines.

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192. (New) The disk of claim 176 wherein a portion of the light-sensitive compound is adapted to be selectively activated.

193. (New) The disk of claim 192 wherein the light-sensitive compound is activated by crosslinking.

194. (New) The disk of claim 192 wherein the light-sensitive compound is activated by laser activation.

195. (New) The disk of claim 192 wherein the light-sensitive compound is activated to provide at least a portion of a file allocation statement.

196. (New) The disk of claim 176 wherein the data track includes instructions to re-read a locus on the disk.

197. (New) The disk of claim 196 wherein activated light-sensitive compound is disposed over at least a portion of the locus.

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198. (New) The disk of claim 197 wherein the activated light-sensitive compound is a delayed luminescent or phosphorescent compound.

199. (New) The disk of claim 198 wherein the activated light-sensitive compound is interpretable by a reader to provide a response different from that provided by the data track.

200. (New) The disk of claim 196 wherein the data track includes instructions to continue accessing data on the disk based on the first and second sets of usable data being different.

201. (New) The disk of claim 176 wherein the light-sensitive compound is disposed on the disk by spin coating.

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202. (New) The disk of claim 176 wherein the light-sensitive compound is less than about 120 nm in thickness.

203. (New) The disk of claim 202 wherein the light-sensitive compound is less than about 10 nm in thickness.

204. (New) The disk of claim 203 wherein the light-sensitive compound is less than about 1 nm in thickness.

205. (New) A method of treating an optical storage medium comprising:
recording a first set of usable data on an optical storage medium;
applying a light-sensitive compound to the optical storage medium at a location on the optical storage medium so that the light-sensitive compound may cooperate with the first set of usable data; and
selectively activating at least a portion of the light-sensitive compound, wherein, in the activated state, the light-sensitive compound allows reading of the first set of data and wherein the light-sensitive compound is responsive to excitation to produce a second set of usable data that is different from the first set of usable data.

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206. (New) The method of claim 205 wherein the light-sensitive compound is activated by crosslinking.

207. (New) The method of claim 206 wherein the light-sensitive compound is crosslinked by laser activation.

208. (New) An optical recording medium comprising:
data structure having a first set of data; and
means for producing, upon re-reading at least a portion of the optical recording medium having the first set of data, a second set of data that is different from the first set of data regardless of the data structure having the first set of data.

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209. (New) The optical recording medium of claim 208 wherein the second set of data is temporary.

210. (New) An optical recording medium comprising a data track formed of at least one of pits and lands representing a first set of usable data, wherein at least a portion of an output of the data track is predictably altered upon re-reading to produce a second set of usable data that is different from the first set of usable data regardless of the formation of the data track.

211. (New) The recording medium of claim 210 wherein the second set of data is temporary.

212. (New) The optical recording medium of claim 210 wherein the medium comprises a CD.

213. (New) The optical recording medium of claim 210 wherein the medium comprises a DVD.

214. (New) The optical recording medium of claim 210 further comprising a light sensitive light-sensitive compound.

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215. (New) A method of authenticating an optical storage medium, the medium having a first plane including data and a second plane having a light-sensitive compound, the method comprising:

reading data from the first plane on the optical storage medium;

exciting the light-sensitive compound in a second plane on the optical storage medium;

and

reading data from the second plane of the optical storage medium.

216. (New) The method of claim 215 comprising instructing a reader to alter a focal length of a laser.

217. (New) The method of claim 93 wherein re-reading at the locus occurs within an amount of time required for the light-sensitive compound to emit light.

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218. (New) The method of claim 149 wherein re-reading at the locus occurs within an amount of time required for the light-sensitive compound to emit light.

219. (New) The method of claim 93 wherein the light-sensitive compound has an emission wavelength of less than about 848 nm.

220. (New) The data storage medium of claim 115 wherein the light-sensitive compound has an emission wavelength of less than about 848 nm.

221. (New) The disk of claim 176 wherein at least a portion of the light-sensitive compound is adapted to emit at a wavelength of less than about 848 nm.

222. (New) The disk of claim 196 wherein activated light-sensitive compound is disposed under at least a portion of the locus.

223. (New) The disk of claim 131 wherein activated light-sensitive compound is disposed under at least a portion of the locus.